

## REMARKS

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

### A. Claim 3

Claim 3 is hereby cancelled. Applicant hereby reserves the right to restore the claim at a future date pursuant to the applicable statutory rules and procedures.

### B. Specification Amendment

Applicant respectfully disagrees that there is added new matter to the application. The 02 May 2006 response to the 26 October 2003 Office Action merely includes structural and operational components to shaft encoders that are well known to those knowledgeable in the art. The amendments provided are part of the initial application found in the summary of the invention and drawings, and are implicit, intrinsic, or inherent in the application as filed. Therefore, the amendments should be permitted under M.P.E.P. §608.04 and §608.01.

The amendment filed 02 May 2006 is objected to pursuant to 35 U.S.C. 132(a) because it allegedly introduces new matter into the disclosure. Not all matter added to the disclosure after the filing date of a patent application is new matter. Material that is implicit, intrinsic, or inherent in the application as filed is not new matter. In particular, amendments to a patent application that are fully supported in the description, claims, or drawings of the application as filed may be subsequently added by amendment to any other part of the application without introduction of new matter.

In the 02 May 2006 amendment, the inventor inserted descriptions to the specification previously disclosed to merely provide an explanation of pre-existing enablement as requested from the 26 October 2003 Office Action. Specifically, the applicant on page 2 (starting from

second to last line of page) through page 3 (ending on line 15) inserted such terms as, “explain the operation of the speed sensor such that anyone skilled in the art can understand.” In response to the 26 October 2003 Office Action, the inventor inserted, “two slotted disks”, “rotatably journaled shafts” and “trackballs.” More importantly, the 02 May 2006 amendment specifically states, “Shaft encoders and their operations are well known to those knowledgeable in the art. In summary, shaft encoders may use a slotted disk or a patterned reflective disk to break or un-break a light beam upon a phototransistor or other type of light sensor at a rate proportional to the shaft rotational speed.”

The amendments do not constitute new matter as defined under 35 U.S.C. §132(a) and M.P.E.P. §608.04. M.P.E.P. §608.04 further provides, “in establishing a disclosure, applicant may rely not only on the specification and drawing as filed but also on the original claims if their content justifies it.” See M.P.E.P. §608.01.

The 26 October 2003 Office action requested “disclosure how a detector would be able to determine the speed in order to alter the frequency.” In complying with 35 U.S.C. §112 and §102, the inventor amended his application with matter already disclosed in the application.

At issue is whether the structure and operation of the shaft encoders were disclosed. There is no dispute that the shaft encoders are disclosed in the detailed description and marked as “12” in Figure 2, and the speed sensor itself was disclosed. The speed sensor was placed in Figure 2 of the drawings and discussed in the original specification. The operational electrical output from the longitudinal and transverse directions of the speed sensors are fully disclosed in Figure 3.

The described shaft encoder structure and operation are well known to those knowledgeable in the art. The shafts as seen in Figure 2 are mounted in a base housing. A trackball is placed within the shaft. The use of a trackball as a means for motion and rotation are well known to

those knowledgeable in the art. The speed sensor described in the amendment is one embodiment of the invention well known to those knowledgeable of speed sensors in the art.

The 06 May 2006 amendment further states one may use either a slotted disk or a patterned reflective disk or other types of light sensory devices. A slotted disk or patterned reflective disk is inherent to use to break or un-break a light beam incident upon a phototransistor. One skilled in the art would have knowledge that shaft encoders require either a slotted disk or a patterned reflective disk as a light sensory device to alter a light beam and therefore alter the voltage from a phototransistor as described in the detailed description, figures 2, 3 and 4,

Therefore, with the addition of the detailed description of shaft encoders in the 02 May 2006 amendment, the application only provides previously disclosed material either found in this application or in the prior art. For these reasons the applicant respectfully requests that the present rejection be withdrawn.

C. Claim 4

The Examiner rejected claim 4 for failure to include an antecedent basis for “the sewing machine.” Claim 4 now refers to the position of the base plate relative to the speed sensor and sensor arm.

D. Claim 6

The Examiner rejected claim 6 for failure to include an antecedent basis for output of a frequency in relationship to the speed sensor. Claim 6 now reflects that there is a limitation on the speed sensor in that the speed sensor will output a frequency comprising of two channels. Since the claim is clearly addressed as a method, the amendment reflects the verbal structure and apparent method described in the claim.

E. Claim 5, 7, and 8

Applicant respectfully requests that the inherently drafted methods in claims 5, 7, and 8 be amended to reflect the process described.

1. As for claim 5, the original application utilizes the word “converts” within the claim. Converts is clearly an action verb, and therefore, the intent and description contained in claim 5 was for a method or process, and not an apparatus. Since the claim is clearly addressed as a method, the claim 5 is amended to reflect the verbal structure and apparent method described in the claim.

2. As for claim 7, the original application utilizes the word “converted” within the claim. Converted, a grammatical tense of the verb “convert,” is clearly an action, and therefore, the intent and description contained in claim 7 was for a method or process, and not an apparatus. Since the claim is clearly addressed as a method, the claim 7 is amended to reflect the verbal structure and apparent method described in the claim.

3. As for claim 8, the original application utilizes the word “added” within the claim. Added, a grammatical tense of the verb “to add,” is clearly an action, and therefore, the intent and description contained in claim 8 was for a method or process, and not an apparatus. Since the claim is clearly addressed as a method, the claim 8 is amended to reflect the verbal structure and apparent method described in the claim.

F. Claim Rejection 1, 4, and 5- prior art over Koerner

With regards to claims number 1, 4, and 5 being rejected by the examiner in reference to Koerner, U.S. Publication Number 2005/0016428, applicant respectfully disagrees that 35 U.S.C. § 102 (e) forms a basis for rejection as being anticipated. The Koerner application has been thoroughly reviewed.

Koerner does not disclose an electronic stitch length regulator utilizing a sewing machine and frame structure, internal encoders affixed to a carriage, electrically connected to electronic circuitry which takes the signal generated by the sensor as input and outputs an electrical resistance, when finally applied to the foot pedal controls the electrical connector of the sewing machine.

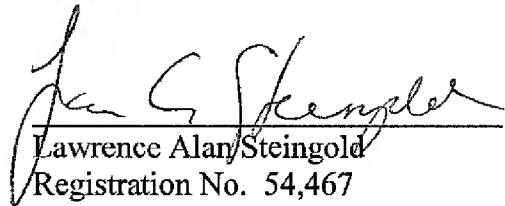
Koerner's application relies upon using optical sensors above the throat plate to control the movement of the needle when sewing. The Koerner's optical device, 64, as seen in FIG. 7 and 8 in said Koerner's application does not anticipate the application of internal encoders, shafts, and free movement along a frame system which in turn outputs a signal to increase or decrease resistance within the sewing machine and foot pedal. In fact, the Koerner's application fails entirely to utilize a frame structure, carriages, or control of position based on alteration of electronic signals converted to resistance of the sewing machine or foot pedal. Instead, Koerner's application exclusively relies upon optical sensors, 64, located with the throat area of a sewing machine to control the stitch length. The optical lenses, 93 and 94, located in optical sensor, 64, emit an "X" and "Y" pulse, 97, as a result of photo detectors, 184, located directly below the hold down plate, 23. As stated in Paragraphs [009] and [010] of Koerner's application, detection is specifically restricted to stack surface movement within the throat space.

The current invention bases the entire detection of movement from sensors affixed to shafts located within and on a plate located below the sewing machine. The movement of a plate, not the fabric inside the throat plate, triggers an input signal and subsequently an output signal to either apply resistance to the foot pedal and needle, or continue at stage intervals.

## CONCLUSION

In view of the above, it is submitted that the claims are in proper condition for allowance. Reconsideration of the rejections and objections is requested. In view of all the foregoing reasons, applicant respectfully submits that the present application is in condition for allowance, and such allowance is earnestly solicited.

Respectfully Submitted,



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